Where to get Assistance?

Contact the North Carolina Forest Service or city arborist in your area for help in identification of Turpentine beetle infestation and for information on tree removal or treatment.

FOR HELP, CONTACT THE FOLLOWING:

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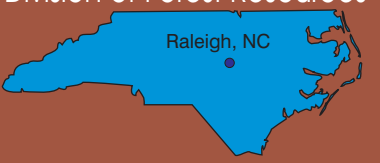
North Carolina
Division of Forest Resources



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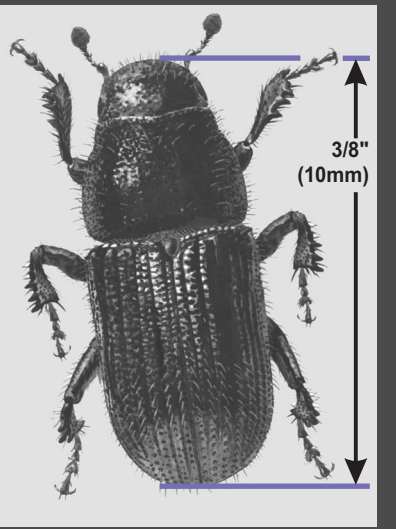
TURPENTINE BEETLES

Of North Carolina

NORTH CAROLINA FOREST SERVICE N C



1997
James B Hunt, Jr.
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Jonathan B. Howes
Secretary

TURPENTINE BEETLES OF NORTH CAROLINA

RECOGNITION AND CONTROL

As their name suggests, bark beetles spend a major portion of their lives living in the inner bark of trees. Turpentine beetles are the largest of the bark beetles found in North Carolina. Two species are found in this state: the red turpentine beetle is common in the mountains while the black turpentine beetle can be found in the piedmont and coastal plain. These insects attack all species of southern yellow pines that grow in North Carolina, and both species have similar life cycles and habits. Damage patterns and control strategies for both the red and black turpentine beetles are similar.

DESCRIPTION OF DAMAGE

Turpentine beetles are attracted to trees by the odor of fresh resin, which is produced when a tree is injured. They are strong fliers and fly to host trees to begin an attack.

The first sign of turpentine beetle attack is the appearance of gobs of pitch on the lower trunks of infested trees. These "pitch tubes" are about the size of the end of a thumb and when fresh, are soft and will have reddish boring dust mixed in with the resin. An entrance hole approximately one-fourth of an inch in diameter can be seen in the center of the pitch tube. With time, the pitch forming the tube will harden, then become granular and finally will fall from the tree as whitish-red granules.

A tree can recover if attacked by only a few turpentine beetles. However, if a large number of beetles attack a tree and no action is taken, the tree will die. Tops of dying pine trees first turn yellow, then red, and finally, in four to six weeks, the needles drop from the trees, leaving them bare.

LIFE CYCLE

Adult turpentine beetles are approximately one-fourth inches long and can easily bore through the outer bark of a pine tree and build a tunnel in its inner bark. The female beetle lays a number of eggs in the tunnel which hatch into white or cream colored larvae. The larvae feed in a group, eating a patch of inner bark. If enough beetles attack a tree, the patches of eaten bark come together, girdling the tree and killing it. The larvae pupate in the inner bark and after resting in the pupal stage for approximately one week, they become adults who emerge from the tree and fly away to initiate new attacks.

PREVENTION AND CONTROL

Since turpentine beetles are largely attracted to trees because of resin from injuries, infestation prevention should be centered on protecting trees from damage in the first place. Care should be taken not to scar trees with equipment during logging or construction operations. This includes both the large roots as well as the trunks of pine trees.

When beetles do attack a tree, control strategy depends on the extent of the attack. If only a few pitch tubes are found, no control in necessary. If large numbers are found (over one pitch tube per one-inch tree diameter), the tree should be treated with an insecticide. Dursban and lindane are currently registered insectides for treatment of turpentine beetles. However, since registrations can change, check with your County Forest Ranger or Agriculture Extension Agent before beginning treatment.